Spanish Forest

Independent Forest Audit

April 1, 2005 – March 31, 2010

FINAL REPORT

ArborVitae Environmental Services

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1.0 EXECUTIVE SUMMARY

This Independent Forest Audit examined the performance of Domtar and the MNR in managing the Spanish Forest for the period April 1, 2005 to March 31, 2010. The audit period coincides with the term of the 2005 Forest Management Plan (FMP) and also includes the development of the 2010 FMP. The audit team consisted of five professionals, each with a wealth of experience in forest management. At least 15% of area treated by each major operation type during the audit period was inspected in the field. Site inspections were made by accessing sites either by truck, or helicopter. Use of a helicopter also provided the audit team the opportunity to assess the broad character of the forest landscape as affected by forest operations.

The audit found that the Company and MNR performed very well in managing the Forest during the audit period, adhering to the general direction of the 2005 FMP and preparing a high-quality FMP for the period 2010-2020. The broad economic slowdown took a toll on harvesting activities during the audit period, with less than 40% of the planned harvest area actually being cut. Despite this, the Company fulfilled its other management obligations well. The silviculture program implemented on the Forest is well-done, although the audit team notes the need for the Company to remain vigilant in its silvicultural treatments on sites harvested with cut-to-length systems, as regeneration difficulties are possible.

The audit team issued a total of five Recommendations. Three of the five Recommendations are directed to the MNR District(s) involved in management of the Forest, and two are directed at the MNR and Company jointly. In June 2010, after the audit period, the SFL was transferred to EACOM Timber Corporation, which will be responsible for implementing recommendations directed towards the Company. Because Domtar's forest management staff were also transferred to EACOM, there is strong continuity of management.

By far, the ongoing management of access on the Forest is the most challenging issue for its managers to grapple with. The Forest is relatively close to southern Ontario, and a major population centre (the city of Sudbury). Therefore, the Forest experiences a high level of demand for recreational uses. In addition, the Forest supports a thriving remote-tourism industry, and providing the wilderness-type experience upon which that industry depends is a challenge in the relatively high-use setting on the Forest. Access management was identified as a concern in the two previous IFAs (in 2000 and 2005), and little progress seems to have been made in grappling with the issue in a broader context. The audit team found evidence of many transgressions of access restriction efforts and there is significant dissatisfaction with several aspects of access management among the public and tourism operators. The MNR does not seem able to provide a level of enforcement sufficient to act as a deterrent to those inclined to transgress the access restrictions. This is a reflection not only on the MNR's enforcement capacity but on the very challenging circumstances (large areas, many points of access restriction, a wide user-base) which exist on the Forest. This audit's most significant recommendation is for the MNR to lead a review of the effectiveness of its policies and practices regarding land-use and access management on the Forest. If the review identifies weaknesses the MNR is to amend the FMP and/or land-use policies to provide adequate direction.

Another important recommendation made by this audit is also directed at the MNR and requires that it assess the extent to which its staff cutbacks are affecting its performance in contributing to management of the Forest. MNR, LCC and Company staff noted that MNR's cutbacks have led to difficulties in providing adequate enforcement of access restrictions, collection of values information, follow through of compliance obligations, etc.

Overall the compliance performance of the Company and its contractors was good, however, this audit identified a number of issues related to compliance monitoring in need of improvement. Although not severe in nature, they should be addressed to ensure the compliance program remains of high quality.

The number of recommendations identified by this audit is low relative to contemporary standards, reflective of the very good level of management being conducted on the Forest. Highlights of the audit include:

- The 2010 Forest Management Plan and other planning documents (Annual Work Schedules, Annual Reports) are very good quality documents, providing excellent direction to the forest managers;
- The Company undertook a high level of silvicultural activities in spite of dealing with the difficult economic circumstances which plagued the forest industry;
- The LCC is a very effective body, representing a broad base of interests and providing informed advice to the MNR and Planning Team; and
- Company and MNR forestry staff are experienced professionals, with a good rapport and deep understanding of the Forest.

The audit team concludes that the management of the Spanish Forest was generally in compliance with the legislation, regulations and policies that were in effect during the term covered by the audit and the Forest was managed in compliance with the terms and conditions of the Sustainable Forest Licence held by Domtar during the audit period and now held by EACOM Timber Corporation. Forest Sustainability is being achieved, as assessed through the Independent Forest Audit Process and Protocol. The audit team recommends that the Minister extend the term of Sustainable Forest Licence # 542391 for a further five years.

Chris Wedeles,
Lead Auditor

2.0 TABLE OF AUDIT FINDINGS

Recommendation on Licence Extension
The audit team concludes that management of the Spanish Forest was generally in compliance with the legislation, regulations and policies that were in effect during the term covered by the audit, and the Forest was managed in compliance with the terms and conditions of the Sustainable Forest Licence held by Domtar during the term of the audit period and now held by EACOM Timber Corporation. Forest sustainability is being achieved, as assessed through the Independent Forest Audit Process and Protocol. The audit team recommends the Minister extend the term of Sustainable Forest Licence #542391 for a further five years.
Best Practice
1. The Company is commended for the development and implementation of its renewal tracking system.
Recommendations Directed to the SFL Holder/MNR District(s)
1. The MNR in consultation with the forest industry, the tourism industry, recreationalists and First Nations shall review the effectiveness and adequacy of its policies and practices regarding land use and access management on the Spanish Forest. The review shall address policies and practices related to all the existing access-related issues facing the Spanish Forest, including adequacy of enforcement, nature of access restrictions, protection of remote values, and access to forest resources need by the forest industry. If the review identifies weaknesses in policy or practices, the MNR in consultation with appropriate partners and stakeholders shall revise the direction to amend the FMP and/or land-use policies as required.
2. The MNR shall provide an objective quantitative assessment of its performance in meeting its management responsibilities for the Forest, using management obligations and historical levels of activity and accomplishments as benchmarks. If the analysis shows that MNR performance is declining, it shall identify and implement options to offset/reverse the diminished capacity and performance. Options may include reassessment of staff priorities and allocation of tasks, and increasing of staff levels in areas where performance has been found lacking.
3. The MNR shall complete District SEM program tasks as directed by the Provincial Program with the Espanola Area Office providing coordination and leading the completion of an annual summary report for the Spanish Forest.
4. The Company and MNR shall work together to report non-compliances by the reporting deadlines and administratively close off or take necessary action for any open FOIP reports that are beyond their due dates.
5. MNR Sudbury District and the Company, with input from Chapleau and Timmins Districts, shall prepare and implement annual compliance plans which review the previous year's compliance performance, analyze and define compliance and training priorities, and discuss strategies to address compliance issues based on the complexity of operations and the sensitivity of resource values affected for the coming year.

3.0 INTRODUCTION

This chapter provides context for the audit, both in relation to the audit basis and process and in relation to the Spanish Forest. Section 3.1 provides a high-level description of the audit scope, process, and input received – a more detailed description can be found in Appendix 4. The key characteristics of the Spanish Forest and some key issues that have created challenges in past audits and plan periods are identified in sections 3.2 and 3.3, respectively. These issues were among those that merited special attention during the audit. The chapter concludes with a summary of input received into the audit.

3.1 AUDIT PROCESS

The Crown Forest Sustainability Act (CFSA), and one of its Regulations (160/04), directs the Minister of Natural Resources (MNR) to conduct a review of each of the province's managed forests every five years to ensure that the licensee has complied with the terms and conditions of the Crown Forest Sustainability Act, its Sustainable Forest Licence (SFL), its forest management plan and other regulatory requirements. The effectiveness of operations in meeting plan objectives and improvements made as a result of prior IFA results, are also to be assessed. The IFAPP also requires the audit team to provide a determination regarding the sustainability of forest management and whether the term of the SFL should be extended (the Regulation also includes the latter requirement). A detailed description of the scope and process of an IFA is set out in the Independent Forest Audit Process and Protocol (IFAPP), which contains some 150 audit procedures and is available on the Ministry of Natural Resources website.

This audit covers the five-year period from April 1, 2005 to March 31, 2010. The audit period encompasses all five years managed under the direction of the 2005 FMP. The audit also covers the period during which the 2010 Forest Management Plan was developed, and so the process of developing that plan is reviewed in this audit.

For the entire duration of the audit period the SFL holder for the Spanish Forest was Domtar Inc. In late March, 2010 Domtar announced that it had entered into an agreement for the sale of its forest products business to EACOM Timber Corporation[1]. The transaction, which included the transfer of the Spanish Forest SFL, was completed on June 30, 2010. Therefore, although a different corporate entity (Domtar) was managing the Spanish Forest during the audit period, the present SFL holder (EACOM) has the responsibility for continuing management of the Forest, including addressing the findings which arose as a result of this audit. It should be noted that all of Domtar's forest management employees were transferred to EACOM, providing continuity of management of the Forest. Therefore, all the EACOM personnel involved in the IFA had forest management responsibilities under Domtar and so were fully versed in management of the Forest.

An important note about context of the IFAs is that they review the performance of both the SFL-holder, which was Domtar, and the MNR. In other words, the accomplishments

[1] Forward looking statements in this report refer to EACOM, the present SFL holder. Statements which reflect on, or describe forest management performance during the audit term refer to Domtar, the SFL holder during that period.

of both parties with responsibilities related to forest management are covered by the audit. ArborVitae Environmental Services Ltd. undertook this IFA using a five-person team. Profiles of the team members, their qualifications and responsibilities, are provided in Appendix 6.

3.2 MANAGEMENT UNIT DESCRIPTION

The Spanish Forest is located in north-Central Ontario (Figure 1). Its southeastern border is approximately 40 km northwest of the city of Sudbury, and it occupies approximately 1.2 million ha of land in the midst of a triangle formed by Timmins, Elliot Lake and Sudbury. Main vehicular access to the Forest is provided by Highway 144 which runs between Timmins and Sudbury, through Gogama.

Figure 1. Overview map of the Spanish Forest, with provincial location inset.

The Forest is located in the MNR's administrative districts of Chapleau, Sudbury and Timmins. The Sudbury District acts as the lead for MNR's administration of the Forest, although representatives from all three districts are active in forest management within their administrative bounds.

Table 1 provides an area description of the Forest. Approximately 89% (1.09 million ha) of the total area encompassed by the Forest is Crown managed land. Most of the remainder is in protected areas, or private land. Most of the forest is productive land; approximately 91% of the Crown managed area is classified as productive forest.

Table 1. Area Description of the Spanish Forest. (Source 2010 FMP, Table FMP-1)

Land Class	All Land Ownerships[a]	Crown Managed Forest
Water	125,253	84,496
Non-forested Land	10,202	8,548
Non-productive Forest[b]	78,511	73,740
Productive Forest[c]	1,012644	994,885
Total	1,226,610	1,087,670

a – includes Crown Managed Forest, Parks, Private, and Federal Land.
b – Includes areas incapable of growing commercial trees, such as muskeg, rock, brush, etc.
c – Includes forest areas capable of growing commercial trees.

The Spanish Forest spans the Great Lakes-St. Lawrence – Boreal forest transition, and has distinct elements of both forest regions, although the boreal comprises a greater portion of the Forest. The northern portion of the Forest is dominated by boreal tree

species such as jack pine, trembling aspen, white birch, black spruce, and white spruce. The very southern portion of the Forest includes areas dominated by red and white pine and some concentrations of tolerant hardwoods. As shown in Figure 2, the Forest has a notable age-class distribution with a relative lack of area in mid-age (41-80 yrs) and a relative abundance of young (1-20 yrs) and old (81-120) forest. The age-class imbalance, which is markedly different from a 'natural' boreal profile which would contain progressively less forest in each age class, is a function of effective fire suppression beginning in the mid-decades of the 20th century and the intensive renewal programs of recent decades.

The global recession of the last few years had a significant impact on management activities on the Spanish Forest, as it did on most forests in Ontario. For the five-year period covered by the audit, only approximately 38.5% of the planned harvest area was actually cut. Although a much higher proportion of the planned silviculture was conducted, as a whole, forest management activities were severely curtailed. The Nairn sawmill, which was forecast in the 2005 FMP to be the largest user of wood produced from the Forest, was closed from late 2006 to late 2008.

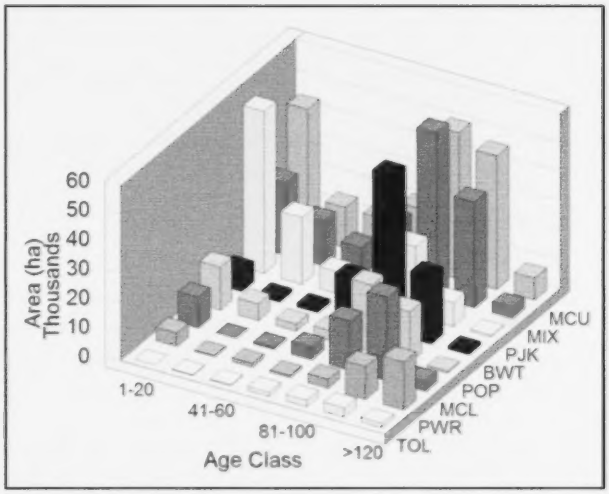

Figure 2. Age-class distribution of the forest units. (Source 2010 FMP SFMM output file; See Appendix 5 for forest unit definitions.)

Over the last couple of years of the audit period the harvest has increased substantially. In 2009/10 the harvest area of 7,565 ha was more than triple that of 2007/08, the lowest year, when only 2,183 ha were harvested.

Eight First Nation communities have traditional land-use areas that overlap with portions of the Spanish Forest: Sagamok First Nation, Brunswick House First Nation, Mattagami First Nation, Serpent River First Nation, Wikwemikong Unceded Indian Reserve, Whitefish Lake First Nation, Chapleau Ojibwe First Nation and Mississaugi First Nation. Of these eight First Nation communities, five (Sagamok First Nation, Mattagami First Nation, Wikwemikong Unceded Indian Reserve, Brunswick House First Nation and Chapleau Ojibwe First Nation) participated on the 2010 FMP planning team.

The Spanish Forest provides a wide variety of recreational opportunities. Being very close to Sudbury, a major population centre, the Forest experiences more recreational pressure than do most in northern Ontario. The FMP lists 38 resource-based tourism establishments on the Forest. Resource-based tourism on the Forest includes traditional activities such as hunting and fishing, but also includes ecotourism ventures such as canoe tripping and wildlife viewing.

The Forest has a relatively high density of black bears and provides habitat for all other typical boreal and Great Lakes-St. Lawrence wildlife species, including moose, deer, lynx, marten and a wide variety of songbirds. The Forest also provides habitat for species designated as being of special concern, threatened or endangered by either

provincial or federal authorities, including bald eagle, rusty blackbirds, Canada warbler, olive-sided flycatcher, common nighthawk, whip-poor will, chimney swift, golden-winged warbler, and snapping turtle.

3.3 CURRENT ISSUES

Access

As will be apparent in later stages of this report, access management is perhaps the most vexing issue on the Forest at present. Being relatively close to southern Ontario and the city of Sudbury, the Forest experiences a high level of demand for recreational use. Meeting the desires of these users is often a challenge for the forest industry and the MNR. Most challenging is attempting to satisfy the requirements of the remote tourism industry, which by its nature, requires seclusion in order to meet the demands of its clientele, while at the same time facilitating the forest industry, which of course requires road access to all parts of the Forest targeted for harvesting, and silviculture. Once access is created, there is a large local constituency which favours retention of the access once forest operations have been completed. Over the years the large land base of the Spanish Forest has facilitated avoidance of the issue to some extent by focusing forest management activities on areas of less concern to the remote tourism industry. However, it seems that avoidance is no longer a viable option as access continues to be developed to reach previously unharvested areas.

Poor Economic Conditions

The period encompassed by the audit was one of the worst ever for Ontario's forest industry. Numerous mills across the province have shut and harvest and employment levels declined markedly from the period prior to the global economic slowdown. Harvest levels on the Spanish Forest were significantly less than planned during the audit period, and the Nairn sawmill was closed for two years. In spite of the difficult economic circumstances, Domtar did not cut back on its silviculture program, and is, therefore in very good condition to continue its high quality of forest management. The forest industry is recovering tentatively – harvesting activity has increased notably and the Nairn Sawmill has returned to operations. In spite of these positive recent trends, the future for the forest industry continues to look challenging as housing markets (a benchmark user of lumber) remain unstable and pulp and paper continues to be affected by societal shifts to less paper use.

Renewal Challenges

The recent shift by the Company in harvesting practices away from full-tree logging to a cut-to-length (CTL) system presents some challenges regarding renewal. In some forest units, CTL processing can result in very concentrated slash loading throughout the harvest block and presents a challenge for effective site preparation. The Company is aware of these difficulties and is employing a number of measures to deal with them. While the movement away from road side processing is advantageous for the reduction in loss of productive forest land, extra effort is needed to ensure that high levels of regeneration are attained.

Compliance Monitoring

The compliance performance on the Forest was good for the review period, yet three of the five recommendations from this audit related to compliance monitoring. The MNR's Silvicultural Effectiveness Monitoring (SEM) was not effectively implemented; the MNR and Company need to pay more attention to follow-up items related to compliance

inspections; and annual compliance monitoring plans are not developed according to requirements.

3.4 Summary of Consultation and Input to Audit

The audit solicited input into the audit from the public, stakeholders, and Aboriginal organizations. Four means were used to solicit input

1. Notices were run in four newspapers soliciting input. The notices gave context to the audit program and this audit in particular and asked for public response to a series of general questions.
2. A mail-out was conducted to a sample of 350 individuals and organizations on the MNR's District mailing list. The mail-out targeted those individuals and organizations with a history of interest and involvement in the Forest. The mailing contained a questionnaire and asked recipients to mail their responses in to the audit team.
3. Most members of the Local Citizen's Committee were canvassed for input into the audit. In addition members of the audit team attended an LCC meeting, gave a presentation on the audit program and engaged the committee in conversation regarding the audit.
4. Representatives of all interested First Nations were contacted and provided opportunities to provide input.

Detail on the content of input is provided in Appendix 4.

4.0 AUDIT FINDINGS

4.1 Commitment

Because the Spanish Forest is certified to the Forest Stewardship Council National Boreal Standard, this principle is considered to have been met and was not assessed during this IFA.

4.2 Public Consultation and Aboriginal Involvement

Local Citizens Committee

The Local Citizens Committee (LCC) for the Spanish Forest is a well-functioning coherent group. The committee's membership is broad, ranging from naturalists, trappers and independent loggers, to canoeists, cottagers associations, and resource outfitters. The LCC has identified vacancies for fish and wildlife and mining and efforts are underway to recruit new members from those sectors. Given the location of the Forest (very close to a major urban centre) the audit team found that the membership of the LCC adequately represents the interests present in the area.

The LCC developed new, detailed terms of reference in October 2007 prior to the commencement of the 2010 forest management planning process. They are very detailed with clear direction regarding the purpose of the LCC, its members' roles and responsibilities, membership tenure, selection of LCC representative to the Planning Team, recruitment, public outreach, etc.

Committee members felt that the LCC was a good representation because most people bring to the table more than the interest they are specifically representing, resulting in rich, productive discussions. Most of the discussions and issues raised during plan development are related to access and remoteness (roads, road closures, seasonal access, buffer zones for cottages and resource base tourist outfitters, access to lakes, fishing and hunting, use of ATVs, etc.) Many members of the LCC were concerned that MNR did not have sufficient resources and staff to properly enforce/control access restrictions. This is addressed in Recommendation 2 (Appendix 1). LCC members also expressed concern over the technical jargon and would like to get a "lay person" version of things. MNR Staff recognize this concern and have committed to ensuring that concepts are explained to LCC members in clearer language.

The LCC was well supported by the MNR, attending to the committee's needs and requests on an ongoing basis. MNR also provides training to LCC members around Forest Planning and also around specific issues raised by LCC members. The audit team found that the set up, administration and functioning of the LCC and the public consultation process meets the regulatory requirements.

Aboriginal Involvement
All interested First Nations were contacted prior to the site-visit portion of the audit and again at times throughout the audit team's engagement. Unfortunately only one First Nation responded.

The general low level of participation in the audit from FNs was discussed with MNR and company staff. It may be attributed to a number of factors among them:

- frustration over the lack of resolution to issues that may be beyond the scope of the FMP, thus FMP process is not a good vehicle to address them (for instance there was work done with the Union of Ontario Indians to establish a Resource Management Committee with a broader mandate);
- lack of capacity to deal with all consultation requests (including multiple certification audits); and
- the current economic situation of the forest industry, make it a low priority when compared to better economic opportunities in other sectors (mining, energy projects).

The audit team reviewed all documentation related to First Nations and found that all notifications related to herbicide use and planning, including the Annual Work Schedule (AWS) inspection are in place and were undertaken according to the FMPM timelines.

The MNR Aboriginal Liaison officer in Sudbury District, the lead District for the Spanish Forest, shares the consultation role with Aboriginal communities with counterparts in other Districts. All communications with First Nations are on file and available for review, including records of phone conversations. EACOM has on file all of its communications with First Nations.

4.3 Forest Management Planning

FMP Production
During the audit period, the 2010 FMP for the Forest was prepared using the direction of the 2004 FMPM. One of the biggest challenges faced by the planning team was

coordinating input from many institutional offices - the three MNR Districts, MNR Northeast Region, and two company offices (Timmins Regional Office and Nairn Field Office). In anticipation of such challenges and recognition that the prescribed planning process is arduous, the planning team began its activities roughly one year prior to the schedule suggested in the FMPM. This was a prescient strategy as some aspects of planning took longer than anticipated, but the flexibility built in by an early start date provided the flexibility necessary to produce the plan on time.
In spite of some delays, the planning process went smoothly. Overall the audit team was impressed that a good quality FMP was prepared for this complex forest on time and following the then-new FMPM requirements. The strengths of the planning team are that it was relatively small, and comprised of experienced professionals. There was very strong coordination by the lead MNR area forester. Interviews with planning team members indicated that there was good communication, a strong commitment to reach consensus and resolve issues and timely support to Company staff by MNR district and regional staff.

The Forest Management Plan is very well-written. All the background information is presented in an orderly and coherent manner. Particularly well written and comprehensive are the sections related to non-timber values. The plan contains an excellent rationale and description of the wildlife component of planning.

Plan Amendments
There were 18 amendment requests to the 2005 FMP with 3 classified as 'minor' and the remainder as 'administrative'. All requests were handled efficiently by the MNR. The low number of amendments and the relative frequency of administrative amendments is evidence of good planning.

Annual Work Schedules
There were five AWSs prepared during the audit period. All were submitted, reviewed and approved on time to allow operations to start on April 1 each year. The documents were generally of good quality.

Requests for Individual Environmental Assessments
In the later stages of preparation of the 2010 FMP the MNR and Ministry of the Environment (MOE) received three requests for individual environmental assessments (IEA). Two of the requests concerned the impacts of access development and management on the remote tourism industry, and the third expressed broad concerns about the sustainability of Ontario's forest management process in general. The MNR and MOE followed the required processes for dealing with the requests, with MNR providing MOE abundant background and documentation regarding the concerns. MOE denied all three requests, and noted some concessions to the tourism operators concerns made by MNR and the Planning Team.

Harvest
The 2010 FMP sets forth a planned set of harvest operations that is generally consistent with the direction embodied in the 2005 FMP. The planned spruce-pine-fir volumes in the first five-year period of the 2010 FMP are very similar to those in the 2005 FMP; the major change is a reduction in planned poplar harvest volume, which declined from 391,000 m^3/yr during the 2005-2010 term to 268,000 m^3/yr during the first term of the 2010 FMP. On one hand, the 2010 volume exceeds the sum of committed poplar volume from the Forest. On the other hand, it falls well below 400,300 m^3/yr, which is

the sum of the Spanish Forest's management unit contributions (MUCs) to the Ministry Recognized Operating Levels (MROLs) of mills using poplar from the Forest. This is not seen as a significant issue because the MROLs and associated MUC's are out of date to varying degrees and did not figure strongly into target setting. MNR itself advises using the MROLs with caution.

The 2010 FMP sets out the criteria which were used for selecting areas for harvest – these were found to be appropriate and consistent throughout the planning process. The Company engaged in the process of seeking to negotiate resource stewardship agreements, and concluded one with a remote tourism operator.

Silviculture

The Silvicultural Ground Rules (SGRs) contained in the plan meet the FMPM requirements. The SGRs are comprehensive and are indicative of a deep knowledge of the Forest and its response to interventions. The post-succession data presented in the SGRs reflect good knowledge and documentation of renewal success.

Forest Operations Prescriptions (FOP's) are prepared generically with the preferred option as described in the SGR's. Implementation of the FOP is via the SGR code contained in the stand listing for harvest, renewal and tending as described in the AWS. Each AWS is certified by a Registered Professional Forester (RPF). Each AWS revision detailing changes to renewal contains the appropriate stand listing with an SGR code and is signed by a Registered Professional Forester as required.

AOCs

The AOC prescriptions identified in the 2010 FMP were found to be comprehensive and well-developed. The FMP contains prescriptions for 113 different types of AOCs. This number is considerably higher than normal for FMPs, and partly because each of the 48 Resource-Based Tourism operations was allocated a distinct AOC. In addition, the plan contains 9 AOCs for individual parks and protected areas. The remaining 56 AOCs are for group values, such as archeological sites, canoe routes, etc, of which there are many on the Forest. Finally, because the FMP implemented direction of the 2010 Stand and Site Guide[2], a greater variety of group AOCs were recognized. For example, three different AOC prescriptions are provided for osprey nests (primary, inactive, and alternate), taking the lead from the Stand and Site guide which fosters a reductionist approach.

One noteworthy approach to AOCs is that taken for lake trout lakes. Three different prescriptions are provided, depending on the degree of existing access. For lakes which are already accessed, a less restrictive prescription is provided, recognizing the logic of not imposing restrictive prescriptions for forestry in instances in which access already exists. For lakes which remain remote, prescriptions are much more restrictive.

Access

As described briefly earlier, access management on the Forest is a very challenging part of its management. By virtue of its location, the forest experiences a high demand for recreation and is important for the tourism industry. Access management was identified in the two previous IFAs (2000 and 2005) as important aspects of management to

[2] Ontario Ministry of Natural Resources, Forests Branch. 2010. Forest Management Guide for Conserving Biodiversity at the Stand and Site Scales. Queen's Printer for Ontario. 211 p.

address. Concerns about access management were the most prevalent raised to the audit team in our stakeholder consultation, and were also the subject of two of the three bump-up requests associated with the 2010 FMP.

The facets of access management of concern include:

- transgressions of access control structures (i.e. gates, signs) by unauthorized personnel (as evidenced during the site inspection- see Figure 3);
- inadequate enforcement of access restrictions (as evidenced by levels of transgression found on site and confirmed by discussions with MNR staff and enforcement personnel);
- concern about effectiveness of AOC prescriptions in providing appropriate buffers between remote tourism operations and accessed areas (as evidenced by observations during the site assessment and discussions with remote tourist operators and the LCC);
- general reduction of the landbase suitable for tourism activities;
- additional costs to the forest industry related to circumstances in which measures have been taken to control access.

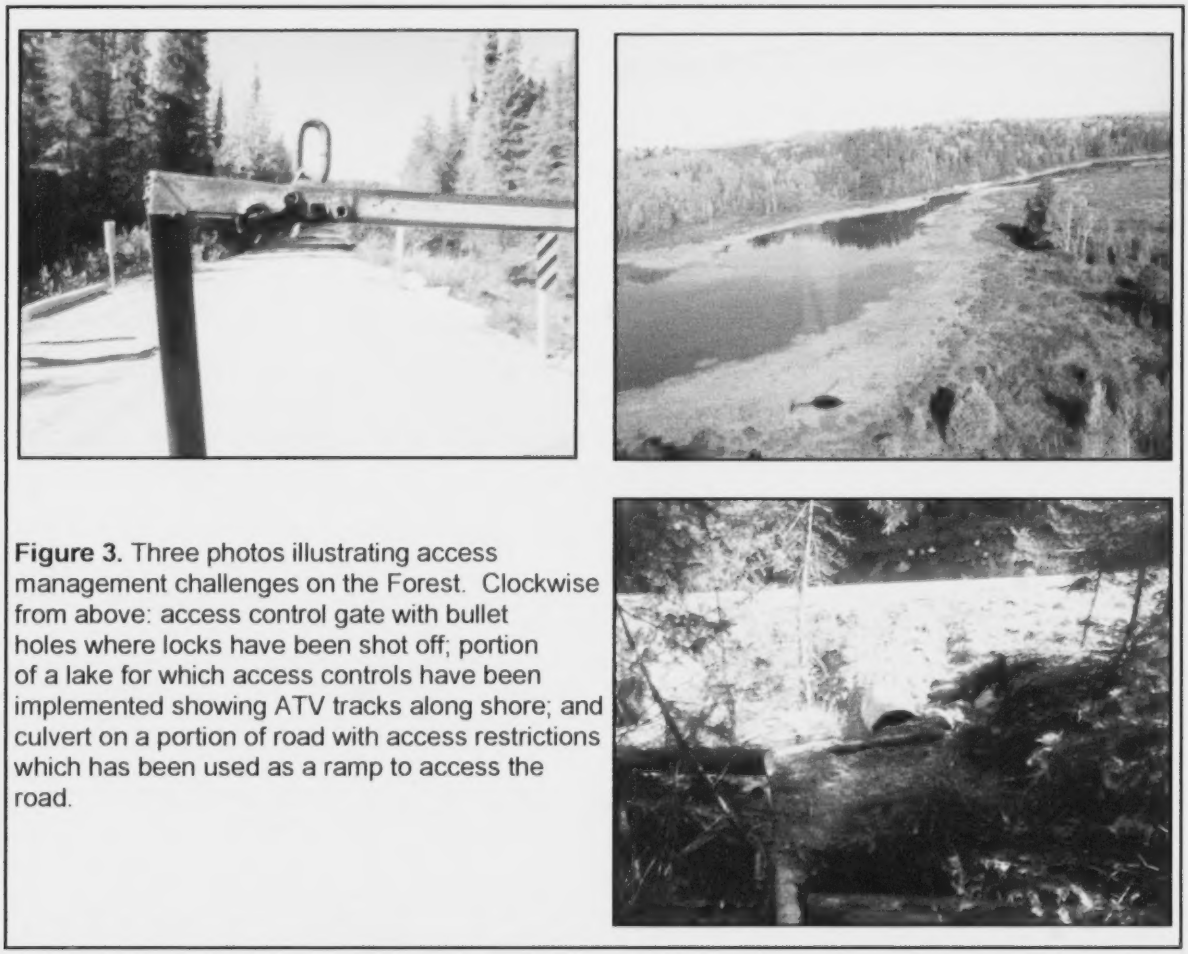

Figure 3. Three photos illustrating access management challenges on the Forest. Clockwise from above: access control gate with bullet holes where locks have been shot off; portion of a lake for which access controls have been implemented showing ATV tracks along shore; and culvert on a portion of road with access restrictions which has been used as a ramp to access the road.

Company and MNR staffs routinely encounter vehicles beyond some access-control points. In the Ministry of the Environment's (MOE) response to one of the bump-up requests it noted: "*Access restrictions will continue to be enforced by the MNR and significant penalties issued to those who access these areas without proper authorization*" In fact, MNR enforcement staff informed the audit team that access restrictions are very difficult to enforce, (generally because relatively few staff are available to deal with the large areas and long-travel times involved), few penalties have been levied, and penalties are generally not significant. In addition, the MOE's response cites a recent MNR report documenting the effectiveness of road restrictions through signage. The document however refers to a relatively narrow set of circumstances which do not represent the majority of situations on the Spanish Forest.

Remote tourism operators are the most at-risk due to access control difficulties on the Forest. Their businesses rely on providing wilderness-like settings for their clientele. Two of the three bump-up requests involved this concern. In addition, the issue was raised in correspondence to the audit team provided in response to stakeholder outreach, and the issue was identified as one of only two topics of concern by the LCC in their "Statement of General Agreement for the 2010-2020 FMP". Both company and MNR staff acknowledge the legitimacy of these concerns.

The audit team also heard from road-based recreationalists who also expressed frustration in the manner in which access management restrictions are managed on the Forest.

The audit team believes that the existing efforts to deal with access management issues on the Forest may be insufficient to provide the broad and comprehensive direction needed to adequately address this issue. The FMP process is not well suited to developing access and land use strategies and more comprehensive policy direction may be required. Recommendation # 1 (Appendix 1) addresses this issue.

4.4 Plan Assessment and Implementation

Forest Resource Inventory

The Forest Resource Inventory (FRI) for the Spanish Forest is quite old, utilizing 1990 photography. This can create forest management planning issues if there have been significant forest level changes due to insect damage or forest succession in very old stands. Updates for natural and harvest depletions have been completed as required. Stands were aged and grown correctly, and an approved methodology utilized for dealing with forest succession issues for very old stands. The Company has acquired and is making use of, the recently-flown digital FRI, although a complete new inventory, which is to be provided by the MNR, is not yet completed.

Harvest

The harvest operations were conducted well. Except for a large white and red pine shelterwood cut, almost all harvesting was done using the clearcut technique. The Company was diligent in leaving a suitable number of standing residual trees, representative of the original stand and containing snags and other wildlife trees, and in leaving insular and peninsular area within harvest blocks. The MNR reported that mapping of the insular residual areas suggested that insufficient area was often being left in larger (> 100 ha) harvest blocks, however the Company felt that the required

amounts of area were generally left unharvested but many of the small insular areas were not being mapped. At the time of writing, District MNR staff are sampling aerial photos of recent harvest areas to estimate the area of insular and peninsular patches of timber retained in a sample of harvest blocks. Utilization of harvested timber was very good, and most roadside slash piles were being burned, although there was a hiatus in 2007 and 2008 in order to save money. No site damage was observed in the harvest blocks.

Throughout the forest, the Company left mature white and red pine trees standing within harvest blocks to help meet the plan objective of restoring the abundance of these species towards pre-industrial levels. The audit team observed negligible damage to the residuals, or to the trees remaining after the shelterwood harvest in white and red pine in the south end of the Forest.

Of all of the area planned for harvest in the 2005 FMP period, 38% was harvested during the 2005 FMP period, and 43% of the planned volumes was obtained (the final results will be marginally higher once the harvesting of the bridged[3] area is completed). The actual level of harvest on the Spanish Forest was also low in the 2000 FMP period (65% of the planned area and 59% of the planned volume were actually harvested). The fallout from the economic downturn has re-cast wood flows and costs so that Domtar's Espanola mill is now expected to utilize a much larger volume from the Spanish Forest than it has previously. As a result, the audit team believes that future harvest levels will be closer to planned levels.

During the 2005 plan period, the actual harvest area was highest as a proportion of planned in the jack pine forest units, followed by the poplar, white birch and jack pine dominated mixedwoods. The MNR and Company collaborated well to revise the plan to enable the harvest of a large area of mature jack pine that had been infested by jack pine budworm, and was at risk of experiencing significant dieback and mortality without treatment. This non-salvage harvest added significantly to the jack pine harvest. In terms of volume, 60% of the planned softwood, and 20% of the planned hardwood harvest was realized

Renewal

The effects of the long history of Company management of the Spanish Forest are evidenced in the excellent silvicultural program. Renewal treatments of seeding, planting, site preparation and tending viewed by the audit team were well done with good coverage. The audit team did observe that several of the sampled sites appeared to require supplemental tending treatments. The Company reported that 1,166 ha required tending retreatment. Investigations of reasons for the ineffectiveness of the initial treatments were inconclusive. The audit team notes that first generation tree improvement orchards are supplying the seed requirements for jack pine planting stock. The team also observed the completion of pre-commercial jack pine spacing that was forecast in the 2005 FMP wood supply calculations, and the red and white pine plantations established on former mixedwood sites aiding in restoration targets.

[3] There are often situations where harvest operations from one FMP are not completed before expiry of the plan. Provisions for 'bridging' allow for harvest of these areas in the subsequent FMP.

A jack pine budworm protection plan was implemented in 2009 with no reported issues. The plan included both a strategy of redirected harvest by the Company and a Bt spray, by the MNR; both were successfully implemented.

CTL processing is employed on approximately 75% of the harvest operations. A significant benefit of stump-side processing is the reduction of productive forest land lost to roadside slash piles. However CTL processing can result in very concentrated slash loading depending on the species and density of the harvested stand. With the increased hardwood harvest, particularly on MW1 and MW2 sites that are being treated for conifer renewal, the slash loading presents a challenge for effective site preparation. This is also an issue following harvest of dense spruce stands. The Company has employed a number of measures to deal with the slash loading. The first is an increased use of blading, which if not done carefully, can result in detrimental site disturbance producing reduced growth. The second is a delay in site preparation to allow the "browning" of the slash to facilitate the penetration of site preparation to mineral soil. Overall, while the movement away from road side processing is advantageous for the reduction in loss of productive forest land, the audit team notes the need for the Company to stay vigilant in its efforts to ensure full regeneration of these harvested sites. Of particular note are the potential requirements for increases in herbicide and site preparation treatments.

Areas of Concern
The audit team inspected 15 different types of AOCs during the course of the audit, primarily by aerial reconnaissance. We found no violations of prescriptions. Further inspection of compliance records showed no significant infractions or systemic issues.

Access
Concerns about access management on the Forest are described above in Section 4.3.

The access infrastructure in place in the forest (i.e. roads, bridges, culverts) is in good shape and well maintained. The Forest has an extensive road network in place, only 3.5 km of primary road was built during the audit period (no branch roads were constructed).

The Company was able to make appropriate use of funding available through the provincial roads program. Most of the Company's efforts were related to road up-grades and improving/upgrading existing crossings. The audit team inspected five bridges which were up-graded during the audit period and found all to be in good repair.

4.5 System Support

Because the Spanish Forest is certified to the Forest Stewardship Council's National Boreal Standard, the human resource component of this principle is considered to have been met and was not for the Company assessed during the IFA.

However, in several instances, in response to queries from the audit team, MNR staff noted that staff levels have declined markedly over the last few years. The MNR Sudbury District has lost 16 full-time positions since 2006 (4 from the Espanola office), Timmins District has lost 12, and Chapleau has lost 6. None of these lost positions was related to the shifting of some of MNR's former responsibilities to the Ministry of Northern Development and Mines. The audit team is concerned that these cut-backs are affecting MNR's obligations to fulfill its responsibilities effectively. While government cut-backs

and belt-tightening are the norm, the audit team believes that the on-going constraints are endangering the MNR's ability to fulfill its mandate in several ways on the Forest. A number of MNR staff verified that concerns regarding staffing levels have played a role in the organizations decreased capacity. Staffing issues were implicated in several issues identified by this audit, including the ability to provide sufficient enforcement of access restrictions, undertaking an effective SEM program, development of Annual Compliance plans, and development of broad access management strategies. This issue is addressed in Recommendation # 2 (Appendix 1).

4.6 MONITORING

Annual Reports

There were five annual reports (ARs) prepared for the audit period, covering the years 2005/06 to 2009/10[4]. The ARs were of consistently good quality and met the FMPM requirements. Initial and final drafts were submitted on schedule and the MNR met its review obligations on schedule.

Silvicultural Monitoring and Free-to-Grow Monitoring

The Company has an excellent system for monitoring silvicultural effectiveness. The renewal foresters have a wealth of experience regarding silviculture on the Spanish Forest. Field assessments of all regeneration blocks are carried out the year following establishment for both regeneration success and future tending requirements. There is an assessment of tending efficacy the summer following tending and a final assessment of free-to-grow (FTG) conducted 7 years post treatment. The Company has a mature GIS system enabling tracking of all renewal treatments through time.

The FTG assessment is up to date and is driven by an exceptional renewal tracking program that enables both accurate tracking of areas requiring FTG assessment and renewal success as well as a determination of forest renewal liability. This determination of renewal liability has enabled the calculation of the level of Forest Renewal Trust funds required to fulfill the Company's silvicultural obligations that the audit team suggests warrants note as a "best practice" (See Appendix 1).

In contrast to the Company's good system for silviculture tracking, the MNR's is relatively weak. In 2005 the MNR instituted a provincial Silvicultural Effectiveness Monitoring program which required MNR district staff to conduct and report on the effectiveness of renewal programs delivered by SFL holders. The intent of the program is to provide some validation of industry results and, partly, to ensure that MNR retains a core of silviculture expertise. The audit team found that the directed amount of SEM monitoring was not being completed and that there was no coordination of the MNR SEM monitoring on the Spanish Forest, which should be occurring, given that the Forest crosses District and area office jurisdictions. A recommendation (Recommendation # 3, Appendix 1) is provided.

Compliance Monitoring

Compliance inspections are normally conducted by supervisors employed by individual contractors, who are certified compliance inspectors. Company staff review and approve

[4] The 2009/10 report was not due until after the audit period, however as it is included in this report in place of the Trend Analysis (Appendix 7), it has been reviewed by the Audit Team.

contractor reports. Company staff also perform spot check and verification audits, as do MNR staff.

A review of the compliance records indicates that, for the most part, a mature and good compliance program is in place. Only 14 non-compliances were reported out of the 1,091 inspections completed. On average, the Company completed 186 inspections per year, and the MNR 33. Overall there was a very good inspection level undertaken by the SFL holder, while the MNR inspection level was reasonable compared to adjacent forests. All non-compliances receive a root-cause analysis and corrective action within the company's ISO 14001 Environmental Management System.

The audit team did note that some of the non-compliances were reported well past the date of the inspection. Three non-compliances were reported 33, 35, and 41 days after the initial inspection, well past the required five day deadline. A related issue also associated with exceeding deadlines concerns the performance of the Company and MNR addressing tasks identified in compliance reports on schedule. These issues are addressed in Recommendation # 4 (Appendix 1).

Also, related to compliance, the review of the recommendations of the 2005 audit (Appendix 3) revealed that there are two related issues concerning annual compliance planning which are still not being addressed by the Company and MNR. These are addressed in Recommendation # 5 (Appendix 1).

4.7 Achievement of Management Objectives & Sustainability

Details of the achievement of management objectives of the 2005 FMP are provided in Appendix 2. Many objectives have been met, have come sufficiently close to identified targets to be considered successful, or are on track to be met. There are two broad exceptions to this, however. The first is associated with all targets related to harvest level. Given that overall harvest area for the Forest was less than 40% of the amount planned, all related targets were not met. In addition, this has implications for other targets, such as those related to provision of wood supply to mills, movement in the age class distribution etc. However, failure to meet these objectives did not affect the overall sustainability of the Forest. The other set of objectives not being met well are those related to access management. For example, Objective 3 of the FMP was to minimize the impacts of forest management operations on remote tourism activities. Although the Company and MNR developed and implemented AOC prescriptions to attempt to address this, the overall compelling concern with this aspect of forest management suggests that the intent of the objective has not been met – this is addressed in Recommendation # 1 of this audit.

The Year 10 Annual Report, submitted in November, 2010 uses the achievement of objectives of the 2005 FMP as a basis for assessing sustainability. The AR provides a good assessment of the progress in meeting the objectives. For the most part, the Company`s assessment is similar to that provided in Appendix 2, with the notable exception of lack of mention regarding broad access management issues.

Evidence of sustainability identified by this audit includes:

- The planning requirements for the forest have been well implemented; the FMP is a thoughtful document which does a good job of attempting to balance the varied demands on the forest – industrial wood supply, wildlife habitat, and

recreation interests. Other associated documents (i.e. Annual Reports and Annual Works Schedules) followed required processes and content requirements.
- The level of harvest was well within the prescribed limits for all forest units.
- The level of silvicultural activity exceeded the relative amount of harvesting.
- The site inspections carried out during the audit indicated successful implementation of the plans being audited and no serious issues regarding effectiveness of treatments were identified.
- The rate of silvicultural successes, as measured by free-to-grow surveys, and by related elements of the silvicultural effectiveness monitoring program, were consistent with the management objectives in place during the audit term;
- The consultation requirements were all met through the planning process, the LCC expressed satisfaction with the involvement and support provided by the MNR and Company, and there was a high level of communication with Aboriginal communities;
- The LCC is a well-functioning and focussed body, which provides high-quality input to the planning process.
- The compliance performance of the company was good;
- Well-considered measures were developed and carried out to protect non-timber values during implementation of the plan.

All audits identify opportunities for improvement, and this one is no exception. As noted several times earlier, the most striking need for management of the Spanish Forest is the development and implementation of a policy regarding access management. Declines in the level of MNR staffing is also a significant concern.

Overall the results of this audit are very favourable. The audit team believes this is attributable to several inter-related factors:
- The relatively long history of Domtar's management of the Forest and the concomitant development of exceptional management systems over time
- The dedication and experience of Company and local MNR staff
- The high-quality input of the Local Citizens Committee; and
- The excellent working relationship between the Company, MNR and LCC.

The audit team concludes that the Spanish Forest was managed sustainably during the audit period.

4.8 Contractual Obligations

The contractual obligations reviewed in this section are the requirements listed in the SFL. The Company did a very good job of addressing its contractual obligations. Notable points include:

- The Company was up-to-date with its payments to the Crown and had complied with requirements to produce the various planning documents and activity reports;
- The Company prepared all the required reports and plans and abided by the requirements of the FMPM and CFSA regarding their development and implementation;

- Although the volumes of wood delivered to commitment holder mills have generally been well below the quantities listed in the SFL, this is due to the economic circumstances of the past few years and not in any way related to the performance or willingness of the Company to meet its wood supply commitments.
- The Company's compliance performance was relatively good, although the annual compliance plans are in need of improvement (See Recommendation # 5). The level of compliance inspections was good.

A more complete review of the Company's performance relative to its contractual obligations is provided in Appendix 3.

4.9 Conclusions and Licence Extension Recommendation

This audit has reviewed the management of the Spanish Forest for the period April 1, 2005 to March 31, 2010, a period that covered the implementation of the entire 2005 FMP and the development of the 2010 FMP.

The audit covered a period of significant challenge for the forest industry in Canada, and it is a considerable accomplishment that the management of the Spanish Forest proceeded so well during this period. The audit identifies a low number of recommendations relative to past audits throughout the province. While this is a testament to the good management of the forest, we note that two of the recommendations – the need to review and potentially develop and implement a broad access policy, and the need for MNR to take serious stock of its staffing level, are very significant and must be addressed in order for the good level of forest stewardship to persist.

In our conclusion, provided below, we recommend that the Licence for the Forest should be extended a further five years. Two observations regarding this are warranted. First, as noted earlier, the License for the Forest is now held by EACOM Timber Corporation. EACOM inherited management obligations for the Forest in the recent transfer of tenure from Domtar. All management staff responsible for the good performance of Domtar are now employees of EACOM. The extended licence will therefore be held by EACOM and it will be EACOM staff that are responsible for undertaking the Company's portion of the actions required to address the IFA recommendations. Second, for reasons that are not apparent, the MNR did not extend the licence following the recommendation of the previous IFA to do so. This appears to be an administrative issue and not reflective of the Company's management of the Forest. At present the term of the Company's license expires in 2021. When the license is extended following the recommendation of this IFA, the term of the licence should be 20 years, as identified in the CFSA.

In summary, the audit team finds that the Spanish Forest was well managed during the period under review by this audit. Selecting from the wording choices provided in the IFAPP, the audit team concludes that the management of the Spanish Forest was generally in compliance with the legislation, regulations and policies that were in effect during the term covered by the audit and the Forest was managed in compliance with the terms and conditions of the Sustainable Forest Licence held by Domtar and now held by EACOM Timber Corporation. Forest Sustainability is being achieved, as

assessed through the Independent Forest Audit Process and Protocol. The audit team recommends that the Minister extend the term of Sustainable Forest Licence # 542391 for a further five years.

APPENDIX 1 – AUDIT FINDINGS

Best Practice #1
Principle 6: Monitoring **Criterion 6.3 Silvicultural Standards and Assessment Program.** Purpose: To review whether an effective program exists to assess regeneration and silvicultural success.... **Procedure 6.3.2** Assess whether the SFL assessment program is sufficient and is being used to provide the required silviculture effectiveness monitoring information.
Background Information and Summary of Evidence: The Company has an excellent system for monitoring silvicultural effectiveness. The renewal foresters have a wealth of experience regarding silviculture on the Spanish Forest. Field assessments of all regeneration blocks are carried out the year following establishment for both regeneration success and future tending requirements. There is an assessment of tending efficacy the summer following tending and a final assessment of free-to-grow (FTG) conducted 7 years post treatment. The Company has a mature GIS system enabling tracking of all renewal treatments through time. The FTG assessment is driven by an exceptional renewal tracking program that enables both accurate tracking of areas requiring FTG assessment and renewal success as well as a determination of forest renewal liability.
Discussion: This determination of renewal liability has enabled the calculation of the level of Forest Renewal Trust funds required to fulfill the Company's silvicultural obligations. The system is efficient, makes excellent use of GIS technology and is well-implemented. The system exceeds the norm for corporate efforts at silvicultural tracking. There are considerable benefits associated with the system, including incorporation of accurate information in modeling and efficient use of silvicultural expenditures.
Conclusion: The Company's efforts are noteworthy and provide significant benefits to planning.
Best Practice: The Company is commended for the development and implementation of its renewal tracking system.

Recommendation # 1
Principle 3: Forest Management Planning **Criterion 3.5.3 Resource-Based Tourism Values.** This criterion addresses whether resource-based tourism values have been addressed through the FMP process. **Procedure 3.5.3.1** Review the commitment to protect tourism values in the FMP process... where remoteness was identified as a value to protect how the FMP has addressed maintaining a reasonably similar level of remoteness. **NOTE** – The issue of access management is also addressed in criterion 3.5.8.1 (Effectiveness of roads planning), and 4.7.1 (implementation of approved access activities)
Background Information and Summary of Evidence: By virtue of its location, the Forest experiences a high demand for recreation and is important for the tourism industry. The FMP process is not well-designed to manage access in challenging circumstances such as exist on this Forest. The fact that the Forest is under administration of three MNR further complicates the situation. Access management has been identified as an important issue on the Spanish Forest in the last two IFAs (2000 and 2005), and the issue persists today. The audit team found evidence of several transgressions of access restriction efforts. MNR staff acknowledge that enforcement is inadequate to provide strong disincentives to unauthorized access. The need for higher-than-present levels of enforcement is symptomatic of broader planning and access management issues on the forest, described in the text of this report. Concerns about access management and policy were the most prevalent raised to the audit team in our stakeholder consultation and were recognized as critical by MNR and Company staff.
Discussion: In broad terms, the audit team believes there may be insufficient policy direction for access management on the Forest. Inasmuch as access management is a component of land-use planning, there may be therefore inadequate direction on land-use planning. However, before a broad policy-related exercise is embarked upon to address this, it would be wise to undertake an assessment of the extent to which present mechanisms are (or are not) working and the strengths and weaknesses of the present approaches both within land-use planning direction and the FMP itself.
Conclusion: As evidenced partly by the fact that this is the third consecutive IFA which has identified access issues as points of concern in the management of the Forest, it is apparent that the planning mechanisms in place on the Forest need to be reviewed. While the MNR should lead this review, because access management on the Forest affects a large community of users, and because this IFA heard of access management concerns from a variety of stakeholders, the review should be conducted in consultation with stakeholders. In addition, the prospect of successfully incorporating any changes to access management on the Forest will undoubtedly be improved if the efforts are developed through consultation.
Recommendation: The MNR in consultation with the forest industry, the tourism industry, recreationalists and First Nations shall review the effectiveness and adequacy of its policies and practices regarding land use and access management on the Spanish Forest. The review shall

address policies and practices related to all the existing access-related issues facing the Spanish Forest, including adequacy of enforcement, nature of access restrictions, protection of remote values, and access to forest resources need by the forest industry. If the review identifies weaknesses in policy or practices, the MNR in consultation with appropriate partners and stakeholders shall revise the direction to amend the FMP or land-use policies as required.

Recommendation # 2

Principle 5: System Support

Criterion 5.1 Human Resources. This criterion is deemed to be met by virtue of FSC certification of the forest ..."unless an issue arises in relation to the company or MNR that causes the auditor to question whether this criterion is in fact being met."

Background Information and Summary of Evidence: The three MNR Districts with management and administrative responsibilities for the Spanish Forest have lost 34 staff between them since 2006 (Sudbury 16, Timmins 12 and Chapleau 6). In response to queries from the audit team, decreases in staffing levels were cited as reasons why MNR performance in several areas has declined, including: collection of values information, involvement in planning, compliance inspections, enforcement of access issues, silvicultural effectiveness monitoring and development of roads strategies. Audit staff were informed that further cutbacks are anticipated.

Discussion: The capacity of the MNR has declined over the last several years, to the point where its performance is suffering. The audit team believes that the Ministry is in danger of becoming marginalized in management of the Forest and of not fulfilling its mandate of serving the people of Ontario in some aspects of management of the Forest (e.g. adequate enforcement of access restrictions, adequate collection of values information). The audit team recognizes that cutbacks within the government are widespread and that local MNR staff are dedicated professionals. However the political/institutional dedication to the role of the MNR seems to be declining.

A bureaucratic default response to the following recommendation will be to cite MNR's dedication to resource management while providing qualitative assurance that it can fulfill its mandate. The audit team urges the MNR to respond in a meaningful way, taking a sincere look at the extent to which it is capable of providing appropriate stewardship and direction for the Forest.

Conclusion: Due to declines in staffing levels, MNR is having difficulties fulfilling its responsibilities regarding management of the Forest.

Recommendation: The MNR shall provide an objective quantitative assessment of its performance in meeting its management responsibilities for the Forest, using management obligations and historical levels of activity and accomplishments as benchmarks. If the analysis shows that MNR performance is declining, it shall identify and implement options to offset/reverse the diminished capacity and performance. Options may include reassessment of staff priorities and allocation of tasks, and increasing of staff levels in areas where performance has been found lacking.

Recommendation # 3
Principle 6: Monitoring **Criterion 6.1. District Compliance Planning and Associated Monitoring.** To review and assess whether an MNR compliance program has been developed and implemented to effectively monitor program compliance. **Procedure (s) 6.1.1.** Review the MNR District Compliance Plans ... and assess whether the actual level of the overall monitoring program was in accordance with plans.
Background Information and Summary of Evidence: In 2005 the Province instituted a provincial silvicultural effectiveness monitoring (SEM) program. The 2008 SEM program directed each District to conduct formal field surveys of a minimum of 10% of area recently declared free-to-grow (FTG), formal field surveys of a minimum of 5% of area declared FTG in or around 2003, and to prepare summary tables and a final report for each Forest. The audit team found that there was no SEM effort in 2005, a very modest 4 stands (no area reported) in 2006, 456 ha of FTG and 16 ha post FTG in 2007, none in 2008 and 523 ha of FTG in 2009. Domtar reported over 34,000 hectares of FTG between 2004 and 2008. The total area of SEM work by MNR (995 ha + area surveyed in 2006) is well below the 10% target.
Discussion: The directed amount of SEM monitoring was not completed and that there was no coordination of the MNR SEM monitoring across the Spanish Forest's District's. Undertaking SEM monitoring is an important responsibility of the MNR that is being inadequately addressed.
Conclusion: District silvicultural monitoring has not been completed at the level directed by the Provincial SEM program.
Recommendation: The MNR shall complete District SEM program tasks as directed by the Provincial Program with the Espanola Area Office providing coordination and leading the completion of an annual summary report for the Spanish Forest.

Recommendation # 4
Principle 6: Monitoring **Criterion 6.2.1 SFL Holder Compliance Planning and Monitoring:** To review and assess whether an SFL compliance program has been developed and implemented to effectively monitor program compliance. **Procedure(s) 6.2.1.4** Examine whether the SFL has continued to maintain their overall forest management oversight role related to develop and maintenance of compliance plans....
Background Information and Summary of Evidence: Fourteen non-compliances were reported on the Forest. Three non-compliances were reported 33, 35, and 41 days after the initial inspection, well past the required five-day deadline. MNR, the Company, and an overlapping licensee were each responsible for one instances. Furthermore, it took an average of 6 to 7 months to resolve and close the 14 non-compliances and one took 16 months to resolve. A related issue also associated with missing deadlines concerns the performance of the Company and MNR addressing tasks identified in compliance reports on schedule. The compliances report undertaken for the Forest indicate that 13 tasks (actions required to close-out a report) are beyond their due dates, and another 19 are approaching their deadline dates and in danger of also exceeding their due dates.
Discussion: The Company has a good compliance record, however the issue of missed deadlines dampens the overall quality of the program. The Company and the MNR should attend to those aspects of the program which are not in accord with the Forest Compliance Handbook.
Conclusion: There is a need to report all non-compliances by the reporting deadlines outlined in the 10- year and annual compliance plans as per procedure FOR 07 03 05 of the Forest Compliance Handbook (2008). There is also a need to close non-compliances in a timely manner, and also close open operational issues and tasks or extend the due dates.
Recommendation: The Company and MNR shall work together to report non-compliances by the reporting deadlines and administratively close off or take necessary action for any open FOIP reports that are beyond their due dates.

Recommendation # 5
Principle 6: Monitoring **Criterion 6.1 District Compliance Planning and Associated Monitoring:** To review and assess whether an MNR compliance program has been developed and implemented to effectively monitor program compliance; and, **Criterion 6.2.1 SFL/AFA Holder Compliance Planning and Monitoring:** To review and assess whether an SFL compliance program has been developed and implemented to effectively monitor program compliance. **Procedure(s) 6.1.1 District Compliance Planning and Associated Monitoring:** District compliance plans should define how forest management activities will be monitored for compliance and whether the actual compliance monitoring was adequate; and, **Procedure(s) 6.2.1.1 SFL Holder Compliance Planning and Monitoring:** Annual compliance plans must meet the requirements of the Guideline for Forest Industry Compliance Planning and must be appropriate and sufficient to assess program compliance and effectiveness.
Background Information and Summary of Evidence: Two recommendations of the 2005-10 IFA regarding improvements to company and MNR annual compliance plans were not fully addressed. Recommendation #16 – that the MNR prepare an annual compliance plan for the Spanish Forest was not addressed as an annual compliance plan was only prepared for 2005-06. Recommendation #17, that the Company include a compliance performance and analysis of compliance priorities in annual compliance plans was not fully addressed either. There is no compliance performance and analysis of compliance and training priorities in the company's annual compliance plans.
Discussion: The Compliance Handbook (2010) indicates "while there is presently no formal internal compliance planning process within MNR, districts are strongly encouraged to continue to develop plans along the lines of the annual compliance operations plan". Given there are three MNR Districts with overlapping responsibilities for the Spanish Forest, the development of an integrated compliance plan, is appropriate. According to the Compliance Handbook the SFL holder is required to review the past years compliance performance and identify and document revisions to the compliance priorities. Forest operations should be evaluated against the sensitivity of operations, the resource values impacted, the complexity of the operation and the compliance history of the licensees or contractors and past operational problems and issues. Training priorities should also be identified.
Conclusion: Neither the MNR nor the Company are meeting their compliance planning obligations for the Forest. Although the level of compliance performance is relatively good, continued vigilance and attention to appropriate planning should be conducted to ensure continued good performance
Recommendation: MNR Sudbury District, with input from Chapleau and Timmins Districts, and the Company, shall prepare and implement annual compliance plans as part the Annual Work

Schedules which review the previous year's compliance performance, analyze and define compliance and training priorities, and discuss strategies to address compliance issues based on the complexity of operations and the sensitivity of resource values affected for the coming year.

APPENDIX 2 – ACHIEVEMENT OF MANAGEMENT OBJECTIVES

Table A2.1. Achievement of 2005 FMP Objectives.

Goals/Objectives	Achievements	Explanation
Forest Diversity		
Landscape Level Diversity Goal: Approach/maintain the diversity of forest types which would be expected to occur naturally in the Spanish Forest. **Objectives:**		
1. To increase the area of jack pine, white pine, and red pine working groups to more closely resemble the historical natural condition.	EACOM has achieved the short term jack pine target of conversion of 2,187 with a total of 2,863 ha. The white/red pine short term target of 1,607 ha was not met with only 853 ha converted to Pw/Pr working group stands however this is in line with the reduction of harvest levels.	The audit team observed areas where red and white pine stand conversions have been successfully carried out. Objective Achieved
2. Maintain and/or increase the composition of white pine within other forest units.	The stated strategy was the use of SGR's to allow options for increasing white pine during stand renewal. Harvest policy is to retain white pine satisfying the target of maintaining white pine composition within other forest units.	The audit team observed areas where red and white pines were retained during the harvest.
3. Maintain the area of all forest units within +/- 20% of the bounds of natural variation (that occurs in the first 100 years) determined through the examination of the natural forest condition	This objective was achieved through the use of applicable constraints within the Sustainable Forest Management Model and with the development and implementation of SGR's.	Objective Achieved
4. Move toward a distribution of disturbances	General improvements to the size-class distribution	Progress in meeting this objective was

Goals/Objectives	Achievements	Explanation
that more closely resembles the expected natural disturbance frequency by size class.	of disturbances were made, however not to all size classes. Positive movement was made in the 10-70 ha, 131-260 ha, and 521-1040 ha size classes.	affected by overall lower-than-planned harvest levels. In addition, it will take many planning cycles to achieve the desired frequency distribution as the present forest is significantly different from the desired.
5. Move towards an age class distribution in which the majority of the forest is contained in stands below the theoretical fire cycle age, and distributed fairly equally by age class among those age classes below that age.	Only slight progress was made for this objective. Much of the forest remains in stands older than the natural fire cycle age	Progress towards this objective was slight due in most part to the lower-than-planned harvest levels.
6. To identify, consider, and provide for forest age class structure needed to maintain functional old growth ecosystem conditions (Ontario Old Growth Forest Policy.	Old growth targets were set for 100 years in the future and were built into SFMM as a constraint, so they were projected to be achieved. In 2010 the old growth targets are attained for all forest units with the exception of conifer lowland	Assessment of this objective is not entirely appropriate at this point in plan implementation
7. Provide for vertical and horizontal stand structure within harvest disturbances.	Snag retention was good on the forest as was retention within stands	Objective achieved
8. Maintain the existing genetic diversity of trees used in the regeneration programs	The Company implemented the strategy associated with this objective through adherence to the provincial seed transfer policy.	The audit team found adherence to seed transfer policy through a review of annual reports on seed collection and use.
Social and Economic Factors		
Social and Economic Goal: To provide for a diverse range of land use activities on the		

Goals/Objectives	Achievements	Explanation
Spanish Forest. **Objective:** 9. To provide for the maintenance or enhancement of existing land use activities on the forest through the protection from or mitigation of the impact of forest operations.	The 2005 plan contains many AOC prescriptions to protect non-timber values. Most have proven effective. However, AOC prescriptions intended to restrict access have not always proven successful.	Recommendation # 1 addresses the need for improved access management.
Social and Economic Goal 2: Maintain the economic benefits associated with the quantity of timber supplied to wood processing facilities **Objectives:** 10. Meet the volume and products of timber required by wood processing facilities (as indicated in Ministry commitments, Mill MROL's, historic supply).	The harvest levels achieved during the 2005 FMP period, and the audit period, were 38% of the planned area and 43% of the planned volume. (Note that these numbers will increase by up to several percent when the results of the bridging operations are reported.) The planned harvest met all commitments and relevant MROLs.	Broad economic circumstances precluded attaining the objective.
11. Manage decreases in wood supply level to a level at which industry can adapt (10 to 20 percent per 10-year term dependent upon species grouping)	Many of the facilities supplied from the Spanish Forest were shut down for lengthy periods of time during the audit period, including the Nairn mill which was closed from October 2006 to October 2008. The woodlands were closed for three years. A major commitment holder on the Spanish Forest entered creditor protection and the relevant mill was recently sold, re-opening only recently. As a result, while commitment holding mills did not take the maximum volumes committed volumes, shortfalls were due to industry and company specific loss of demand.	Although the forest harvest decreased significantly, wood supply itself did not decrease appreciably.

Goals/Objectives	Achievements	Explanation
	Commitments holders' views on how well they were able to work with EACOM (and Domtar before that) ranged from positive to very positive.	
12. Manage changes in total area harvested by forest unit to a level at which industry can adapt. (A range of 50% decrease to 100% increase by forest unit per 10-year term).	The planned harvest volume was largely even flow for SPF and for hardwoods, declining modestly during the first 60 years, before beginning to increase again in 2085. The largest proportional rate of decline was a 25% drop from 2025 to 2045 in the hardwoods.	Change in projected area harvested is within the bounds identified in the objective.
13. To minimize the impacts of forest management operations on remote tourism activities and remote-based recreational activates, consistent with the MNR District's Crown Land-Use Policy Atlas. To carry out forest operations in a manner that enables the resource-based tourism industry to continue its business within the forest.	Several strategies are provided in the plan to address this objective. Although remote tourism continues to exist on the Forest, tensions exist between some operations and forestry activities. The key challenge in addressing the concerns is access management.	Recommendation # 1 addresses the need for improved access management.
14. Moderate or enhance the impacts of forest management operations on road-based tourism activities, road-based recreational activities and other road-based commercial activities, consistent with the Crown Land-Use Policy Atlas	Several strategies are provided in the plan to address this objective. Road-based tourism and recreational activities are fairly resilient, however some issues remain in ensuring equitable access.	Recommendation # 1 addresses the need for improved access.
15. To provide for First Nation involvement and consultation in forest management	All Aboriginal communities were invited to be members of the Planning Team. Wikwemikong	This goal was met as MNR provided the opportunity for Aboriginal

Goals/Objectives	Achievements	Explanation
planning.	Unceded Indian Reserve, Sagamok Anishnawbek, Mattagami, Chapleau Ojibwe First Nation and Brunswick House each appointed a member to the planning team. Meetings to discuss desired benefits were held with Aboriginal communities and funding was provided to communities on the planning team to review and update values information on the Spanish Forest	involvement on the planning team.
23. To progressively increase the forest-based employment and economic benefits derived from the Spanish Forest by local aboriginal communities and businesses.*	The T&C 34 reports document the forest based employment for Aboriginal communities. It was noted that year to year forest based economic opportunities and employment has actually declined due to the general economic difficulties of the forest industry and the mill closures in the area	The lack of progress can be explained by local mill closures and the difficulties experienced by the forest sector in general.
Values Dependent on Forest Cover		
Forest Cover Goal: Maintain habitat for a wide range of representative wildlife species.		
16. Maintain the area of preferred wildlife habitat within 20% of the lower bounds of natural variation (that occurs in the first 100 years) determined through the examination of the natural forest condition	Model runs from 2005 FMP show that this objective would be met. However, given that harvest levels for the five-year period were significantly under-achieved, targets for species with affinities for early successional species may be off-track.	Although targets for early successional species may be off-track, this is not a significant issue as early-successional forest is not in short supply and will continue to be produced through forest management.
17. Maintain a minimum of 10% of the forest which is capable of producing marten habitat in suitable conditions arranged in core areas for 20, 40 and 60 years into the	Underharvest of recent 5-years would not have negatively affected achieving this target	Objective achieved.

Goals/Objectives	Achievements	Explanation
future		
18. Protect the habitat of rare, threatened endangered and locally featured species as well as provincially and locally featured species.	Site-specific management measures (AOCs) have been implemented to protected SAR habitats. Coarse-filter management used as well to protect habitat of locally featured species	No significant transgressions identified in compliance monitoring. Objective Achieved
19. Maintain and protect water quality and fish habitat from any potential effects of forest management operations.	Riparian AOCs used to protect fish habitat. Prescriptions reviewed and considered likely to be effective.	No significant transgressions identified in compliance monitoring. Objective Achieved
Silviculture		
Silviculture Goal: To maintain sustainable, healthy and biologically diverse ecosystems.		
20. To ensure that forests which results from forest management activities are healthy, biologically diverse, and produce a sustainable and economically attainable supply of raw materials for the forest products industry.	The stated strategy to meet this objective was to develop and implement SGR's. This was accomplished by matching the encountered site conditions with the appropriate SGR and treatment regime to meet the desired future forest requirements.	The audit team observed renewal treatments that were appropriate for the site conditions. Objective Achieved
21. Maintain current wood supply levels without increasing the rates payable to the forest renewal trust fund.	This objective analysis was completed within the development of the 2005 FMP.	Renewal liability analysis allowed a renewal rate reduction to $3.00 in 2010, facilitating harvest options.
22. Minimize negative impacts on long-term forest health and productivity due to forest operations	The achievement of this objective was related to a strategy of compliance of guidelines. No compliance reports of site damage were reported.	Major harvest conversion to delimbing at the stump with a resultant reduction in area formerly held as roadside slash piles. The audit team observed cut blocks with slash piled for burning.

** - this objective is out of numeric sequence in the FMP and is represented here consistent with the FMP.

APPENDIX 3. COMPLIANCE WITH CONTRACTUAL OBLIGATIONS

Licence Condition	Licence Holder Performance
Payment of Forestry Futures and Ontario Crown charges	As of March 31, 2010, the Company had paid up to date its Stumpage and Forestry Futures Trust Accounts.
Wood supply commitments, MOAs, sharing arrangements, special conditions	Representatives of three commitment holders were interviewed and all expressed satisfaction with their working relationship with the EACOM staff. While the poor economic conditions constrained the commitment holders' demand for wood during most of the audit period, all felt that they received appropriate levels of supply from the Spanish Forest. There were no sharing arrangements or special conditions associated with the SFL.
Preparation of FMP, AWS and reports; abiding by the FMP, and all other requirements of the FMPM and CFSA	During the audit term, Domtar prepared and began implementing the 2010 FMP. All the AWSs were prepared and implemented appropriately, and all the ARs were prepared as required. All planning documents were of good quality, on time, abided by the FMP and met the requirements of the FMPM and CFSA.
Conduct inventories, surveys, tests and studies; provision and collection of information in accordance with FIM	EACOM has an excellent silvicultural effectiveness monitoring program. During the audit period, 35,063 ha were assessed for FTG status, 117% of the planned area. The FTG program is well integrated into the inventory update procedures.
Wasteful practices not to be committed	Wasteful practices were not observed in the field inspections and were not identified as a concern by MNR. There were very few non-compliances generated by wasteful practices.
Natural disturbance and salvage SFL conditions must be followed	No salvage operations were undertaken during the audit term. The harvest of the large jack pine stand near the Ostrom mill was not classed as a salvage operation even though the intent of the harvest was to utilize a large block that had been infested by jack pine budworm.
Protection of the licence area from pest damage, participation in pest control programs	A jack pine budworm program, including redirected harvest by the Company and Bt spray by the MNR, was successfully conducted in 2009.
Withdrawals from licence area	Not assessed – medium risk procedure.
Audit action plan and status report	The action plan and status report from the 2005 IFA were completed, and the action plan has largely been implemented. Neither document

	received a complete set of sign offs on schedule however the auditees began work on the recommendations before the action plan was finalized.
Payment of forest renewal charges to Forest Renewal Trust (FRT)	As of March 31, 2010, the SFL holder had paid up to date its Forest Renewal Trust Account.
Forest Renewal Trust eligible silviculture work	Forest Renewal Trust eligible silvicultural work assessed in the field by the audit team was of good quality. The Specified Procedures assessment conducted by KPMG for the 2008/09 fiscal year, did not report any errors in the company records for that year. The audit team assessed 17.6%of the total area of the Specified Procedures sites in the field, sampling from all the activities that were conducted (site preparation, renewal, tending and FTG surveys) and found that all treatments were properly mapped and were of good quality. We found that records of renewal activities were easily accessible from the GIS system.
Forest Renewal Trust forest renewal charge analysis	An analysis of the Forest Renewal Trust forest renewal charge has been performed on an annual basis throughout the audit period. Domtar prepared an excellent tracking/tabulation of renewal liability and is easily able to demonstrate that the FRT account has sufficient funds to complete treatment of renewal liabilities. As a result of the analysis, in 2010 the OMNR District staff was able to approve a reduction of the SPF renewal charge. The renewal charge analyses, and the rate changes that were made, were appropriate for the renewal program on the Spanish Forest.
Forest Renewal Trust account minimum balance	The minimum balance requirements for the Spanish Forest were met for each of the 5 years of the audit period, from March 31, 2006 to March 31, 2010.
Silviculture standards and assessment program	Silvicultural Ground Rules have been updated between successive FMP's to reflect local knowledge and scientific advances. FTG assessments have been carried out in accordance with the applicable SGR.
Aboriginal opportunities	During the audit period, the Term & Condition 34 reports indicate efforts to explore potential opportunities with First Nations; meetings with FN individuals and communities; provision of contracts for pre-commercial thinning work; development of MOUs with several FN communities for the production of Native Values mapping reports; and , accepted invitations to

	participate in Desired Forest Benefits sessions
Preparation of compliance plan	During the audit term, Domtar prepared annual compliance plans as required during the 2005-10 FMP period (but see Recommendation # 5), and a ten-year strategic compliance plan for the 2010-20 FMP period.
Compliance inspections and reporting; compliance with compliance plan	A compliance program is in place, yielding results which show good compliance performance. As noted above, more attention is needed in the compliance plans.
Obligations on Class X, Y, and Z lands	There are no X,Y or Z lands identified on the Spanish Forest.

Review of Previous Audits' Recommendations

The audit team reviewed the extent to which the Company and MNR addressed the recommendations of the 2005 IFA. The IFA contained 27 recommendations (one of which was to extend the licence). The recommendations covered a variety of topics, and though none addressed egregious transgressions of requirements, the sheer number of recommendations indicated that there were a number of areas of forest management in need of improvement.

There were no obvious themes to the last audit`s recommendations. Several addressed issues roads and water crossings, requiring the Company and MNR to address maintenance issues. Several others addressed the compliance monitoring systems in place, requiring the MNR and Company to improve the quality of planning and inspection follow-up. Other recommendations addressed:

- Record-keeping practices regarding First Nations involvement and interest in the Forest;
- Field practices related to wood hauling and utilization;
- Quality and submission dates of Annual Reports, and
- Administrative aspects of forest management planning.

All recommendations were addressed, with the exception of two related to compliance planning. Recommendation #16 from the previous audit required "MNR Sudbury District to take the lead in writing a Spanish Forest ACOP containing relevant analysis, consistent direction, and specific quantitative compliance targets for the Spanish Forest for 2006-07 and annually thereafter". Our assessment of the MNR's performance in addressing this recommendation is that an ACOP was developed in 2005-06 through the collaboration of three MNR districts. However, subsequent ACOPs were not completed due to staffing issues. Although, the three MNR districts normally hold a compliance meeting or conference call each spring to review compliance issues on the Spanish Forest, this effort does not meet the detail or comprehensiveness associated with ACOPs. The requirement to produce an ACOPs is repeated in Recommendation # 5 of this audit.

Recommendation #17 of the previous IFA required Domtar to "include Monitoring Inspection Reporting Schedules and an expanded discussion of compliance history and analysis of compliance priorities in future Annual Forest Compliance Plans." Our

assessment of the Company's efforts at addressing this recommendation is that the 2010, 10-Year compliance plan has a brief section outlining the past, present and anticipated compliance problems. The level of discussion provided in the plan is insufficient to provide either a good indication of compliance history to provide direction for future priorities. This deficiency is also addressed in Recommendation # 5.

APPENDIX 4 – AUDIT PROCESS

Overview

The Crown Forest Sustainability Act (CFSA) directs the Minister of Natural Resources to conduct a review of each tenure-holder every five years to ensure that the licensee has complied with the terms and conditions of its licence. The Independent Forest Audit (IFA) contributes to this mandate, as well as complying with the direction to the Ministry laid out in the 1994 Class EA decision, subsequently confirmed in the 2003 Declaration Order[5]. Regulation 160/04 under the CFSA prescribes the minimum qualifications required by the audit team and sets out direction related to the timing and conduct of IFA's, the audit process and reporting.

The Independent Forest Audit Process and Protocol (IFAPP) sets out in detail the scope and process requirements of an IFA, and contains approximately 150 individual audit procedures. The IFAPP, reviewed and updated annually by the MNR, states that the purpose of the audits is to:

- "assess to what extent forest management planning activities comply with the Forest Management Planning Manual and the [Crown Forest Sustainability] Act;
- assess to what extent forest management planning activities comply with the Act and with the forest management plans, the manuals approved under the Act, and the applicable guides;
- assess the effectiveness of forest management activities in meeting the forest management objectives set out in the forest management plan, as measured in relation to the criteria established for the audit;
- compare the forest management activities carried out with those that were planned;
- assess the effectiveness of any action plans implemented to remedy shortcomings revealed by a previous audit; and
- review and assess a licensee's compliance with the terms and conditions of the forest resources licence."

In 2009, MNR introduced a streamlined reporting procedure, which has been followed for this report. The body of the audit report provides a succinct discussion of the audit process and results, with more detail on key aspects contained in the appendices. There are two key types of audit findings – recommendations and best practices. A recommendation is explicitly defined in the IFAPP as follows:

Recommendation - sets out "a high level directional approach to addressing [a] non-conformance. In most cases, recommendations follow from the observation of material non-conformances. In some instances, however, auditors may develop recommendations to address situations where they perceive a critical lack of effectiveness in forest management activities, even though no non-conformance with law or policy has been observed."

[5] Declaration Order regarding MNR's Class Environmental Assessment Approval for Forest Management on Crown Lands in Ontario, approved by Order in Council 1389/03 on June 25, 2003.

Recommendations can be directed towards the Company and/or at the appropriate administrative level of the Ministry of Natural Resources (District, Region or Corporate). Auditees must address all recommendations in follow-up actions.

If the Audit Team feels that an aspect of forest management is exceptional it may be identified as a best practice. The IFAPP states that "Highly effective novel approaches to various aspects of forest management may represent best practices. Similarly, applications of established management approaches which achieve remarkable success may represent best practices." In contrast, "situations in which forest management is simply meeting a good forest management standard" do not qualify.

Audit Procedures and Sampling

The IFAPP describes each of the components of the audit process and contains the audit protocol, which constitutes the main framework for the audit. The procedures, which are the basis for assessing the auditees' compliance and effectiveness, are organized according to eight principles. A positive assessment of the procedures under each principle results in the principle being achieved. A negative assessment of a procedure typically leads to a recommendation.

IFAPP segregates the procedures into three classes based on the risk to forest sustainability should the management aspect covered by the procedure not be achieved:

- "low risk" - strictly administrative in nature;
- "moderate risk" - have an administrative component but also a bearing on sustainability; and
- "high risk" – related to sustainable forest management.

For each principle, the audit team is required to sample 20 – 30% of the procedures identified as low risk and between 50 – 75% of the procedures considered to be moderate risk and all the procedures identified as high risk. This risk-based approach is intended to reduce the auditor and auditee workload and focus the audit on more significant issues. The table below identifies, for each principle, the number of procedures in each risk class, the number audited, and the proportion that are audited. Because the Spanish Forest has been certified to a third-party certification standard, the IFAPP does not require the IFA to assess compliance with Principle #1 (commitment) and the Human Resources part of Principle 5 (System Support). However, as was the case in this audit (See Recommendation # 2) , if the auditors perceive there to be an issue with these Principles, they are able to direct comments and recommendations.

Procedures Audited, by Risk Category Review this table								
Principle	Low Risk			Medium Risk			High Risk	Comments
	Applicable (#)	Selected (#)	% Audited	Applicable (#)	Selected (#)	% Audited	Audited (#) (100% Audited)	
1. Commitment	0	N/A	0	2	N/A	0	0	This principle was not audited because the Forest has been certified to a third-party standard.
2. Public Consultation and Aboriginal Involvement	0	N/A	N/A	6	5	83	2	We opted to audit a higher percentage of medium procedures than required since we think these are important aspects. We opted not to assess whether public notices of inspections were issued, since MNR usually ensures that this is done properly.
3. Forest Management Planning	7	3	43	11	9	82	41	Low risk procedures regarding the content of the plan introduction, SEV briefing note, index to EA components of the FMP, and the plan's contributor page were not assessed since these are examined during plan review. Medium risk procedures related to documentation of the certification and approval of the FMP, and the plan description of the unit's physical features were also omitted for the same reason.
4. Plan Assessment & Implementation	1	1	100	1	1	100	9	All procedures under this principle were audited.
5. System Support	0	N/A	N/A	1	1	100	1	The audit team assessed the Human Resource Criteria as it applied to the MNR (even though the forest has achieved third-party certification) as an issue arose regarding staffing levels.
6. Monitoring	0	N/A	N/A	7	4	47	11	Just more than half of the medium risk procedures under this principle were audited.
7. Achievement of Objectives and Forest Sustainability	0	N/A	N/A	2	0	0	15	Two medium risk procedures that only applied to the RPFO were not audited, since the Year Ten AR is available.
8. Contractual Obligations	0	N/A	N/A	4	4	100	8	All procedures in this Principle were audited.
Totals	8	5	40	34	24	71	87	

The audit commenced with the preparation of a detailed audit plan[6], which described the procedures to be used during the audit and assigned responsibilities to members of the Audit Team. A pre-audit meeting was held between the lead auditor, the Company, MNR, and the chair of the Local Citizens' Committee (LCC). The primary purposes of the meeting were to familiarize the auditees with the audit process, review the Audit Plan, and make a preliminary selection of sites to inspect in the field during the audit. Subsequently, some minor adjustments were made due to access issues, to improve the balance of operations and sites, and to reflect comments from the public and the LCC.

The focus of the audit was an intensive six-day site visit (Oct. 3 – 8), which included document review, interviews and inspections of a variety of sites throughout the Forest where activities had been undertaken during the audit period. There was considerable follow up afterwards during the preparation of the draft audit report.

Sampling and Sample Intensity

The IFAPP required the Audit Team to sample at least 10% of the area treated during the audit period for each major activity, such as harvesting, site preparation, and regeneration. Activities that carried higher risk or that were only undertaken on relatively small areas were to be sampled more intensively. The audit met or exceeded the minimum sample size specified in the IFAPP for all activities, with the overall level of sampling ranging from 13.2 to 27.5%for key activities.

Examples of operations were examined in each major forest unit present on the Forest, representing a range of harvesting systems, year of harvest, season of operation, and silvicultural treatment packages. A number of sites where renewal activities had been conducted during the audit period were visited to evaluate the appropriateness and quality of these treatments and to perform an initial evaluation of their effectiveness. These included sites that were site prepared, seeded, planted, and tended, and those for which natural regeneration treatments were prescribed.

The IFAPP directs the auditors to verify in the field at least 10% of the areas reviewed in specified procedures undertaken by KPMG. This review was undertaken for the 2008-09 fiscal year. We verified in the field 17.6% of the eligible silvicultural activities undertaken by Domtar in 2008/09.

The table below shows the total amount of each key activity that took place during the audit period, and the sample size and sampling intensity in the IFA. In the table, the total in the audit period refers to the areas that were harvested, site prepared, and renewed during the audit period. The next column to the right shows the total area of the treatments viewed during this audit. The sampling intensity is calculated by dividing the area of treatments viewed by the total area (or other relevant measurement statistic) during the five-year period.

[6] ArborVitae Environmental Services Ltd. Spanish Forest Independent Forest Audit Plan, July 12, 2010.

Table 2. Sampling intensity of the field operations, by key feature investigated.

Feature	Total in Audit Period	Total Sampled	Sample Intensity %
Harvest (ha)	24,503	6,738	27.5
Site Preparation (ha)	10,007	3,177	31.7
Natural Regeneration (ha)	25,551	4,446	17.4
Planting (ha)	9,325	1,995	21.4
Seeding	6,026	1,175	19.5
Tending (ha)	24,887	5,177	16.7
Free-to-Grow Assess (ha)	35,063	5,432	15.4
2008 FRT Areas (ha)	8,477	1,497	17.6
Areas of Concern (no.) *	113	15	13.2
Water Crossings**	24	12	50
Primary and Branch Roads (km)	3.5	3.5	100

* Number shown is different types of AOCs.

** Includes aerial reconnaissance, includes crossings upgraded and improved

The table is intended to portray an approximate level of effort only. There are several factors which preclude too-precise an interpretation of the figures presented in the table. Although we viewed many individual harvest and/or treatment blocks during the field inspection portion of the audit, more than one aspect of forest management was inspected at some sites. For example, at sites where harvesting had taken place, harvest practices, compliance issues, road construction, Area of Concern (AOC) protection, site preparation, and regeneration activities may all have been inspected. Finally, of the area figures shown above, it should be noted that we did not inspect every hectare of the blocks we visited – such a level of effort would be infeasible.

Summary of Consultation and Input to Audit

The IFAPP requires the audit team to seek public input into the audit. A sample of 350 individuals and groups, taken from the Ministry's district mailing list, was invited by mail (sent mid August, 2010) to provide input into the audit. Notices requesting comment were placed in four regional newspapers – Sudbury Star, Espanola Mid-North Monitor, Chapleau Express and Wawatay News. LCC members were encouraged to solicit comments from the interest groups that they represent and communicate this to the audit team.

The audit team contacted the eight First Nations that have traditional land use areas that overlap with portions of the Forest. As described in Section 4.2 efforts were made to meet or have telephone interviews/discussions with representatives of all First Nations.

In reply to the all consultation efforts, we received 12 responses via e-mail or regular mail. Three responses directed the audit team's attention to particular areas on the Forest an all sites were added to the audit team's site inspection. Specific or broad concerns identified in the responses included:

- creation of too much access to the Forest;
- too much use of access restrictions on forest roads;
- impacts of access on remote tourism industry;

- excessive use of access roads by First Nations for hunting;
- excessive clearcutting on the Forest
- use of herbicides resulting in declines in wildlife habitat;
- use of herbicides affecting unharvested deciduous trees;
- use of herbicides affecting water quality;
- impacts of forest management on trapping industry;
- lack of buffer zones around certain bodies of water

Of the 12 responses received four considered the Forest to be managed sustainably, four did not, and the remainder did not provide an indication. The audit considered all of the concerns raised by those who responded to the questionnaire or newspaper advertisements.

As described in earlier, audit team members also had discussions and meetings with the LCC and individual LCC members. The topic of most concern to the LCC was access management, and as described earlier, the LCC was generally pleased with other aspects of management of the Forest.

APPENDIX 5 – LIST OF ACRONYMS

AOC	Area of Concern
AR	Annual Report
AWS	Annual Work Schedule
B.Sc.F	Bachelor of Science in Forestry
Bt	Bacillus thurigensis
CFSA	Crown Forest Sustainability Act
Class EA	Class Environmental Assessment for Timber Management on Crown Lands in Ontario
CTL	Cut-to-Length harvesting system
FIM	Forest Information Manual
FMP	Forest Management Plan
FMPM	Forest Management Planning Manual
FOP	Forest Operations Prescription
FOR	Forest Operations Report
FRI	Forest Resource Inventory
FTG	Free-to-Grow
FU	Forest Unit
GIS	Geographic Information System
ha	hectares
km	kilometres
IFA	Independent Forest Audit
IFAPP	Independent Forest Audit Process and Protocol
LCC	Local Citizens Committee
m3	cubic meters
MNR	Ontario Ministry of Natural Resources
MOA	Memorandum of Agreement
MOE	Ministry of the Environment
MROL	Ministry Recognized Operating Level
MUC	Management Unit Contributions
NDPEG	Natural Disturbance Pattern Emulation Guide
RPF	Registered Professional Forester
RPFO	Report of Past Forest Operations
RSA	Resource Stewardship Agreement
SEM	Silvicultural Effectiveness Monitoring
SGR	Silvicultural Ground Rules

APPENDIX 6 – AUDIT TEAM MEMBERS AND QUALIFICATIONS

Auditor	Role	Responsibilities	Credentials
Mr. Chris Wedeles R.P.F. (assoc.)	Lead Auditor and Wildlife and Roads Auditor	• overall audit coordination; • oversee activities of other team members; • liaise with Company & MNR; • review and inspect Areas of Concern Documentation and Practices; • review and inspect aspects of forest management related to environmental practices and wildlife management integration; • review and inspect access and water crossings	B.Sc., M.Sc. (Wildlife Biology); 21 years wildlife and forest ecology and experience in Ontario; completed 31 previous independent forest audits; certified as an auditor by the Quality Management Institute.
Dr. Jeremy Williams, RPF	Harvest and Wood Supply Auditor	• review and inspect harvesting records and practices; • review aspects of forest management related to forest economics and social impacts; • reviews FMP modeling inputs and activities	B.Sc.F., Ph.D. (Forest Economics); more than 20 years consulting experience in Ontario related to forest management, planning, wood supply modeling, and forest economics; participated in 21 previous IFA assignments; certified as an auditor by the Quality Management Institute.
Mr. Paul Poschmann, R.P.F.	Silvicultural Auditor	• review and inspect silvicultural practices and related documentation; • review and inspects selected environmental aspects of forest management	Paul has worked for more than 30 years in the forest industry in Ontario, holding positions as renewal superintendent, divisional forester, management forester, and operations foreman.
Mr. Mark Fleming R.P.F.	Planning Auditor	• review FMP and related documents to ensure compliance with FMPM and other regulations; • review plan development process for conformity with FMPM	Hon. B.Sc.F., R.P.F. 20 years experience in forest management in Ontario as a consultant, working as a regional MNR planning specialist, and operations forester with industry; Trained lead auditor for ISO 14001 and Smartwood/FSC .
Mr. Marcelo Levy, Responsible Forestry Solutions	Consultation Auditor	Review documentation related to forest management consultation Interview stakeholders, LCC, and First Nations regarding forest management issues	B.Sc. (forest engineer) and M.Sc. in Environmental Studies. Directed the FSC Canada Standards Program until 2005, when he formed the current Company.

APPENDIX 7 - TREND ANALYSIS/ANNUAL REPORT

The IFAPP no longer requires a Trend Analysis report to be produced as a separate document in all cases. In instances, such as exist for the Spanish Forest, when a year 10 Annual Report is prepared within the last two years prior to the IFA site visit, in accordance with the reporting requirements of the 2009 FMPM, that AR meets the requirements of the trend analysis for the IFA. The Annual Report is not reproduced here, but is available on the MNR's FMP web site at www.appefmp.mnr.gov.on.ca/eFMP.